DaimlerChrysler AG

Patent claims

- 5 1. A device for forming a peripherally closed hollow profiled element by means of fluidic internal high pressure, with an internal high pressure forming in the forming space of which the hollow profiled element can be laid, with at least one 10 axial plug for sealing off the hollow profiled element at the end face, said axial possessing an axial passage duct supplying pressure fluid, the axial plug having a sealing body which possesses on its end face a trough-like depression, the peripheral wall of which can be 15 open radially elastically, within hollow profiled element, by means of pressure fluid, until said wall comes to bear sealingly against the inner wall of the hollow profiled element, characterized in that the axial plug (4) 20 has a plug head (8) which is rigidly connected to the remaining plug body (9) and can be pushed into hollow profiled element (1) and which formed by an annular collar (10) and a narrowed 25 extension (11) adjoining the latter toward the end face (7) of the head (8), in that the sealing body is a sealing ring (17) which is pushed onto the extension (11) and fixed there, the margin (28) of the annular collar (10) projecting peripherally beyond the outside (27) of the sealing ring (17) 30 at at least one point in the radial direction, and in that the axial plug (4) has, on its plug body (9), a radial peripheral stop for bearing against the closing edge (12) of the hollow profiled 35 element end (13).
 - 2. The device as claimed in claim 1, characterized in that the margin (28) of the annular collar (10)

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narrows conically toward the end face (7) of the plug head (8).

- 3. The device as claimed in either one of claims 1 and 2, characterized in that the sealing ring (17) is supported on the end face (18) of the annular collar (10).
- 4. The device as claimed in one of claims 1 to 3, characterized in that the sealing ring (17) is supported on its depression bottom (23), in the direction of the end face (7) of the plug head (8), by means of a positioning ring (24) which is embedded in a groove (25) of the extension (11).
- 5. The device as claimed in claim 4, characterized in that a spacer ring (26) is arranged between the positioning ring (24) and the depression bottom (23) of the sealing ring (17).
 - 6. The device as claimed in one of claims 1 to 5, characterized in that an annular bead (31), which projects radially beyond the entire annular collar (10) of the plug (4), is formed on the outside (27) of the sealing ring (17).
- 7. The device as claimed in one of claims 1 to 5, characterized in that the outside (27) of the sealing ring (17) has incorporated in it, near its end face (19) facing away from the annular collar, 30 peripheral groove (32) which receives retaining ring (33) possessing an elasticity identical to or deviating from that of the sealing ring (17).
 - 8. The device as claimed in one of claims 1 to 7, characterized in that a circular centering plate (34) provided with eccentric passage bores (36)

and projecting peripherally beyond the sealing ring (17) radially is arranged, with a central lead through (35), on the extension (11), so as to precede the sealing ring (17) toward the end face (7) of the plug head (8).

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